

WHAT IS CLAIMED IS:

1 1. A package for mounting at least one integrated circuit die, the package
2 comprising at least one one-time programmable element having a first and a second
3 end separated by a programmable link, wherein the first end of the one-time
4 programmable element is coupled to a power supply voltage node in the package.

1 2. The package as recited in claim 1 wherein the programmable element
2 is one of a fuse and an antifuse.

1 3. The package as recited in claim 2 wherein the package is a
2 multilayered package and the programmable element is formed of a metalization
3 pattern located on a surface of the package.

1 4. The package as recited in claim 2 wherein the package is a multi-
2 layered package and the programmable element is located on a layer other than the
3 surface of the package.

1 5. The package as recited in claim 2 wherein the programmable element
2 is covered by a protective layer.

1 6. The package as recited in claim 2 wherein the programmable element
2 is not covered by a protective layer.

1 7. The package as recited in claim 2 wherein the second end of the
2 programmable element is coupled to at least one of an external package connection
3 and a package contact that connects to an input terminal of the integrated circuit die,
4 after mounting of the integrated circuit die.

1 8. The package as recited in claim 2 wherein the programmable element
2 is coupled to the power supply terminal through a resistive element.

1 9. The package as recited in claim 2 wherein the second end of the
2 programmable element is coupled to an external package connection and to an

3 internal package node that couples to an input terminal of the integrated circuit die
4 when the integrated circuit die is mounted.

1 10. The package as recited in claim 2 wherein the programmable element
2 is programmable using a laser.

1 11. The package as recited in claim 2 wherein the programmable element
2 is programmable using an electrical current.

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1 12. The package as recited in claim 2 further comprising another
2 programmable element coupled between the second end of the programmable element
3 and an external package connection.

1 13. The package as recited in claim 1 further comprising a second one-
2 time programmable element coupled in parallel with the one time programmable
3 element and wherein the one one-time programmable element is a fuse and the second
4 one-time programmable element is an antifuse.

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1 14. The package as recited in claim 2 wherein the package includes
2 at least one pair of programmable elements, the one pair including the one
3 one-time programmable element and a second one-time programmable
4 element, the second one-time programmable element having a first and
5 second end, the first end of the second one-time programmable
6 element coupled to a second power supply voltage node and the second
7 end of the second one-time programmable element being coupled
8 through an internal package node to the second end of the first one-
9 time programmable element.

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1 15. The package as recited in claim 14 wherein the internal package node
2 is coupled to at least one of an external package connection and an input terminal of
3 the integrated circuit die, after mounting of the integrated circuit die.

1 16. The package as recited in claim 14 further comprising a first resistive
2 element coupled between the internal package node and the power supply node and a

3 second resistive element coupled between the internal package node and the second
4 power supply node.

1 17. An electronic device comprising:
2 a package including one or more one-time programmable elements having a
3 first and a second end separated by a programmable link, wherein the
4 first end of the one one-time programmable element is coupled to a
5 power supply voltage node in the package and a second end of the
6 programmable link is coupled to an internal package node; and
7 at least one integrated circuit die mounted in the package.

1 18. The electronic device as recited in claim 17 wherein the one or more
2 programmable elements specify one or more operating parameters relating to the
3 electronic device.

1 19. The electronic device as recited in claim 18 wherein the integrated
2 circuit die includes a processor and the one or more operating parameters specify an
3 operating voltage of at least a portion of the processor.

1 20. The electronic device as recited in claim 17 wherein the internal
2 package node is coupled to at least one of an external package connection and the
3 integrated circuit die.

1 21. The electronic device as recited in claim 20 wherein the internal
2 package node couples to an external package connection through another
3 programmable element.

1 22. The electronic device as recited in claim 17 wherein the package is a
2 multilayered package and the programmable element is located on a surface of the
3 package.

1 23. The electronic device as recited in claim 17 wherein the package is a
2 multi-layered package and the programmable element is located on a layer other than
3 the surface of the package.

1 24. The electronic device as recited in claim 17 wherein the one or more
2 programmable elements, when programmed, specify a control value relating to clock
3 frequency at which the processor operates.

1 25. The electronic device as recited in claim 17 wherein a state of the
2 programmable element specifies use of error correction code (ECC) for a cache
3 memory on the processor.

1 26. The electronic device as recited in claim 17 wherein the one one-time
2 programmable element is part of a one-time programmable element pair, the
3 programmable element pair including a second one-time programmable element in
4 addition to the one one-time programmable element, the second programmable
5 element having a first end coupled to the internal package node and a second end
6 coupled to a second power supply voltage.

1 27. The electronic device as recited in claim 26 further comprising a first
2 resistive element coupled respectively between the internal package node and the first
3 power supply node and a second resistive element coupled between the internal
4 package node and the second power supply node, thereby providing a voltage divider
5 when the first power supply node is electrically coupled to the second power supply
6 node through the programmable element pair.

1 28. A method for setting a parameter value for an integrated circuit,
2 comprising:
3 selectively programming one or more one-time programmable elements
4 located on an integrated circuit package, thereby selectively coupling
5 an internal package node to a supply voltage node.

1 29. The method as recited in claim 28 wherein the one-time programmable
2 elements are one of a fuse and an antifuse.

1 30. The method as recited in claim 29 wherein the internal package node
2 couples to at least one of an external package connection and an input contact of an
3 integrated circuit die.

1 31. The method as recited in claim 29 wherein the specifies an operating
2 voltage for at least a portion of the integrated circuit.

1 32. The method as recited in claim 29 wherein an integrated circuit die is
2 mounted on the package when the one or more one-time programmable elements are
3 being selectively programmed.

1 33. A method comprising:
2 selectively programming a first programmable element of a programmable
3 element pair located on an integrated circuit package to selectively
4 couple an internal node to a first power supply voltage; and
5 selectively programming a second programmable element of the
6 programmable element pair to selectively couple the internal node to a
7 second power supply voltage.

1 34. The method as recited in claim 33 wherein the internal node is coupled
2 to at least one of an external package connection and an input terminal of an
3 integrated circuit die mounted in the integrated circuit package.

1 35. The method as recited in claim 33 wherein the first power supply
2 voltage is ground (Vss).

1 36. The method as recited in claim 33 wherein the second power supply
2 voltage is Vcc.

1 37. An apparatus comprising:
2 a semiconductor package; and
3 means for specifying a parameter value for the apparatus.

1 38. The apparatus as recited in claim 37 further comprising a processor
2 mounted in the semiconductor package.

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